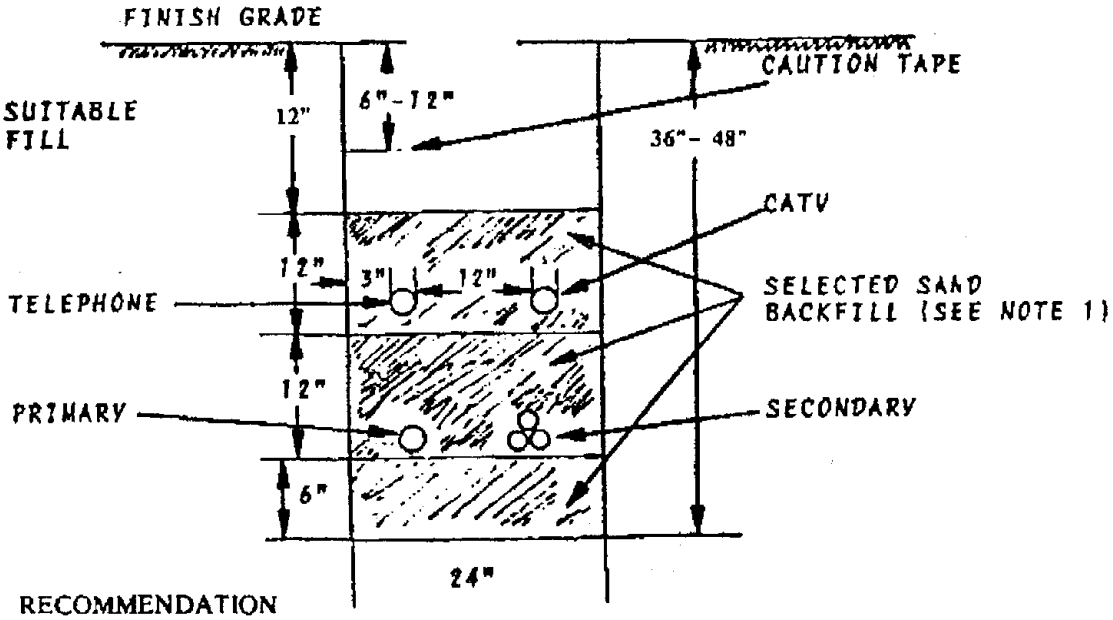
Attachment 2

TRENCH DETAIL PLAN



RECOMMENDATION

NOTES:

1. A - SELECTED SAND BACKFILL SHALL CONSIST FINE GRANULAR MATERIAL, 100% SHALL PASS THROUGH A 1/4" SIEVE.

   B - EXCEPTION: NATURALLY OCCURRING SMOOTH ROUND PEBBLES NO GREATER THAN 3/8" IN DIAMETER ARE PERMITTED AS LONG AS THEIR TOTAL VOLUME PER CUBIC FOOT OF SAND DOES NOT EXCEED 1%.

   C - THE SAND SHALL BE COMPLETELY FREE OF FROZEN LUMPS, ROCKS, STONES, DEBRIS OR RUBBISH.

2. ALL CONDUIT TO BE SCHEDULE 40 UL APPROVED - ALL ELBOWS SHALL BE LONG SWEEPS - NOT PLUMBERS ELBOWS - CONDUIT SHALL BE 4" MINIMUM ON MAIN RUNS AND ROADCROSSINGS - 2" MINIMUM FOR SERVICE RUNS.

3. ALL CLOSURE LOCATIONS TO BE A MINIMUM OF 3' OFF THE MAIN TRENCH AND TO BE FILLED TO FINISHED GRADE WITH SAND.

4. ALL CONDUIT AT CLOSURE LOCATIONS TO BE STUBBED UP ABUTTING EACH OTHER AND TERMINATED 6" ABOVE FINISHED GRADE.

5. A PULL STRING CAPABLE OF A 200 TO 300 POUND PULL SHALL BE INSTALLED IN ALL CONDUITS.

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of Review of the Commission's Rules Regarding the Pricing of Unbundled Network Elements and the Resale of Service by Incumbent Local Exchange Carriers	**WC Docket No. 03-173**

Reply Declaration

of

LEE L. SELWYN

on behalf of

AT&T Corp.

January 30, 2004

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Attachments

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of Review of the Commission's Rules Regarding the Pricing of Unbundled Network Elements and the Resale of Service by Incumbent Local Exchange Carriers	**WC Docket No. 03-173**

REPLY DECLARATION OF LEE L. SELWYN

Introduction

Lee L. Selwyn declares and says as follows:

1. My name is Lee L. Selwyn; I am President of Economics and Technology, Inc. ("ETI"), Two Center Plaza, Suite 400, Boston, Massachusetts 02108. I submitted a Declaration in this matter on December 16, 2003. I have been asked by AT&T Corp. to address and respond to certain issues raised by ILEC declarants Aron and Rogerson for SBC, Weisman for Qwest, Kahn and Tardiff for Verizon, Eisenach and Mrozek for USTA, Taylor, Banerjee and Ware (of NERA) for BellSouth filed in response to the *Notice of Proposed Rulemaking* ("NPRM" or "Notice") issued by the Commission in this proceeding.

2. The ILECs and their witnesses focus upon the "presumptive efficiency" of existing BOC networks as a basis for their contention that "actual" costs or the "replacement cost" of the existing network provide a more realistic basis for setting UNE rates than what they seek to characterize as hypothetical TELRIC network scenarios. They present numerous "studies" purporting to compare current TELRIC rates to other measures of cost. In so doing, the ILECs have ignored the reality of price caps, of ILEC UNE pricing behavior, of incentives to handicap competitors, and have in particular ignored this Commission's own guidelines for the use of various costing models. ILEC witnesses claim that the years of price cap regulation and increasing competition have created optimally efficient ILEC networks, such that TELRIC rates should be based upon *current* network architecture. Their discussions of the effects of "pure price cap" regulation are, however, misplaced, and are entirely irrelevant to the current situation, since "pure" price caps nowhere exists. Indeed, far from promoting network efficiency, the principal "incentive" created by the far-less-than-pure price cap regulation as implemented at both the federal and state levels is *profit-maximization* that operates to encourage ILECs to divert investments and productivity enhancements away from their core, regulated business and over to *nonregulated* lines of business and, where possible, to shift costs back to regulated services.

3. In support of their claims that TELRIC prices are "arbitrary" and confiscatory, ILEC witnesses present studies purporting to compare ILEC "costs" (as variously defined) to TELRIC-based prices. Although the econometric regression analyses submitted by several RBOC declarants have been portrayed as demonstrating the *absence* of any relationship between

TELRIC and their various conceptions of "cost," in reality these studies actually *confirm the existence of strong statistically significant relationships between TELRIC-based UNE prices and ILEC "actual" costs*, and demonstrate that TELRIC principles are being consistently applied by state commissions – i.e., *precisely the opposite of how the ILEC witnesses are portraying the results of their regression analyses*. The unrealistic normative expectations that these ILEC witnesses have posited as between various cost predictors used in their models and TELRIC-based prices are nothing more than contrived "straw men" that serve no purpose other than to obscure the strong support for TELRIC that their models actually reveal.

4. Finally, I discuss various ILEC claims regarding the need for an inflated "risk-adjusted" cost of capital that the ILECs argue would recognize the risks they confront under current market conditions. When correctly analyzed, however, it is apparent that neither competition, network deployment, nor any so-called "carrier of last resort" obligations require any further adjustment to the ILECs' cost of capital. If the ILECs actually considered wireless and other intermodal alternatives to wireline services to constitute serious competitive threats, they would be working to *encourage* CLECs to utilize the ILEC networks rather than affirmatively seeking regulatory approval to exclude CLECs from accessing ILEC network elements. By operating as combined retail/wholesale companies, the ILECs misinterpret and misapply the Commission's "risks of a facilities-based competitive market" cost of capital requirement to imply that the level of "investment risk" should be that which would confront an entirely hypothetical and fictitious "UNE-only" carrier. Finally, there is no basis to conclude that the risks of CLEC "cancellation"

of UNEs are any greater than the risks, already included in the ILECs' cost of capital, that an end user retail customer will discontinue the ILEC's service.

The principal "incentive" created by price cap regulation as implemented at both the federal and state levels is *profit-maximization,* and any "efficiency" incentives that may have been created are necessarily subordinate to – and sometimes in conflict with – that overarching goal.

5. In support of their persistent contention that embedded costs (referred to by the ILECs as "actual costs") rather than TELRIC provide the correct basis for pricing UNEs, several BOC declarants argue that ILEC embedded costs – and, by extension, the existing network architecture and configuration – should be treated as *presumptively* efficient. They contend that, after more than ten years of price cap regulation, and years of growing intermodal competition, the legacy inefficiencies in ILEC costs and practices acquired under rate of return regulation have by now been weeded out.[1] Indeed, the UNE pricing frameworks being proposed by the various ILECs and their witnesses rest upon the *assumption* that existing architectures, practices and costs are necessarily sufficiently efficient that ILEC embedded ("actual") costs, or the reproduction cost of the existing ILEC network, and not TELRIC, provide a more accurate basis for setting compensatory and economic UNE rates. According to Drs. Aron and Rogerson:

1. See, e.g., Declaration of Dennis L. Weisman on behalf of Qwest Corporation, filed December 16, 2003 ("*Weisman (Qwest)*"), at paras. 37-43; "The Economics of UNE Pricing" attached as Attachment A to the Comments of SBC Corp., December 16, 2003 ("*Aron/Rogerson (SBC)*") at 38-43, and RBOC comments generally.

> It is reasonable to infer that the current network configuration reflects acceptably efficient resolutions to those tradeoffs because ... virtually all of the large ILECs across the country operate under price cap regulation, which provides high-powered incentives for cost-reducing behavior, and these companies are held accountable by their shareholders to perform on those incentives.[2]

Likewise, Drs. Kahn and Tardiff claim that competition has contributed to fully efficient ILEC networks:

> ...[B]ecause of the incentives created by competitive pressure from intermodal sources, as well as price cap regulation, there is every reason to believe that ILECs have made, and are making, efficient choices in terms of technology deployment, network configuration and the like. As a result, the costs of their existing networks are the most reliable measure of the "efficient" costs of providing UNEs.[3]

The ILECs further contend that such inefficiencies that may still be present in their networks result either from the reality of an ILEC's network architecture[4] or from their "carrier of last resort" obligations, and as such are properly passed on to CLECs through wholesale UNE rates.[5]

6. These contentions notwithstanding, there is no basis to assume that the 2004 ILEC network architectures, practices and costs are efficient or represent unavoidable inefficiencies of

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2. Aron/Rogerson (SBC), at 44.

3. Declaration of Alfred E. Kahn and Timothy J. Tardiff, filed on behalf of Verizon, December 16, 2003 ("*Kahn/Tardiff (Verizon)*"), at para. 9.

4. See, e.g., Aron/Rogerson (SBC), at Section 3.

5. See, e.g., Declaration of NERA Economic Consulting, filed in support of BellSouth, December 16, 2003 ("*Taylor/Banerjee/Ware (BellSouth)*"), at paras. 22-24, 60; Weisman (Qwest), at para. 53.

ILEC networks. Particularly with respect to the *specific Sec. 251/252 services that they are obligated to provide to CLECs*, the ILECs face few incentives to improve network efficiency and, indeed, confront significant incentives to handicap competitive providers with high UNE costs and artificial incentives to inefficient CLEC facilities-based investment. The reality behind ILEC claims of network efficiency is that, while some improvement in overall operational efficiency of ILEC networks might be a *byproduct* of price cap regulation and/or nascent competition, in reality the principal "incentive" created by price cap regulation as implemented at both the federal and state level is *profit-maximization*. The pursuit of operational and network efficiencies, best practices, and other productivity gains is only one aspect of an overall profit-maximization strategy – and is likely far less important, and thus subordinate to, other ILEC incentives.

7. ILEC profit maximization efforts include such tactics as seeking regulatory concessions and legislation that, among other things, would remove certain services from price cap regulation altogether and provide increased pricing and earnings flexibility. ILECs engage in protracted litigation against competitors that, even if ultimately unsuccessful for the ILECs, nevertheless works to increase their rivals' costs and overall business risks and uncertainty. ILECs are highly selective in their implementation of specific efficiency measures, affording the lowest priority to initiatives that would reduce the costs of UNEs or that would, for example, shorten the time or reduce the potential for error in the fulfillment of orders for UNEs and access services. Such tactics work to maintain high prices for specific essential CLEC inputs, making CLECs that much less competitive and thereby protecting ILEC market shares, revenues and profits.

8. Pursuit of operational efficiency may well be a component of an overall ILEC profit maximization strategy, but the achievement of long run efficiency vis-à-vis local service is far from being the only, and is certainly not the most important, means of maximizing profits, and must compete with the conflicting incentive to protect the ILECs' legacy customer base from competitive encroachment. Price cap regulation almost always brings with it far less regulatory oversight than had prevailed under rate of return regulation, facilitating ILEC efforts to engage in precisely these types of tactics. For example, when individual ILEC services are "reclassified" as "competitive" and as a result are removed from the price cap, in most cases no effort is made to identify and to remove the costs of such "reclassified" services from the aggregate cost of services still subject to price regulation. By shifting revenues out of price caps without a corresponding removal of the costs of the "reclassified" services, ILECs are able to – and regularly do – report depressed earnings and based thereon seek further regulatory concessions and adjustments to their price cap rate adjustment mechanism. These various devices all work to *increase* costs that ILECs assign to price cap regulated services. If UNEs were to be priced on the basis of *current, in-place network configurations and operational practices, ILECs would be able to elevate UNE rates by targeting their efficiency improvements away from these services.* The use of forward-looking TELRIC works to insulate CLECs from the effects of these schemes. However, if embedded "actual" costs or reproduction costs were to be substituted for TELRIC, CLECs would not only be forced to bear the costs of ILEC inefficiencies, but would in fact bear a *disproportionate amount of those inefficiencies* as they residually remain in the monopoly services column.

ILEC claims of network efficiency as a result of price cap regulation assume "pure price caps," which have never existed at either the state or federal levels.

9. Dr. Weisman attempts to rationalize the use of embedded ("actual") costs by advancing the proposition that an ILEC that has been operating under "pure" price cap regulation for an extended period of time can be viewed as being "presumptively efficient." He explains:

> ... The fact that embedded/historical costs are not used to set actual rates for unbundled network elements does not imply that such cost measures do not contain potentially useful information in evaluating the reasonableness of TELRIC measures. For example, suppose that an incumbent provider has been operating under *pure price cap regulation* over a prolonged period of time. A pronounced difference between the current, actual cost of provisioning a loop and the corresponding hypothetical TELRIC measure may allow for a reasonable inference to be drawn that the TELRIC methodology or calculation is suspect. The institutional history is important here; just as we expected the Olympic sprinter to run as fast as he was able in past races, we expect the firm under pure price cap regulation to be as efficient as it knows how to be. Moreover, even the Olympic sprinter that runs flat out in every race knows that his times will likely be better when his competition is stiffest. This is the fundamental failing of hypothetical TELRIC—it assumes that we can determine the "fastest sprinter" without actually running the race.[6]

Dr. Weisman's reference to "pure price cap regulation" is particularly noteworthy. He defines the term as follows:

> Pure price cap regulation means that there is no *ex post* sharing of earnings with consumers. Except where otherwise noted, the terms price cap regulation and pure price cap regulation are used interchangeably.[7]

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6. Weisman (Qwest), at para. 33, footnotes omitted, emphasis supplied.

7. *Id.*, at fn. 59.

From the definition that he advances, it appears that Dr. Weisman has a less-than-thorough understanding as to exactly what the "pure" in "pure price cap regulation" means, and his suggestion that "the terms price cap regulation and pure price cap regulation [may be] used interchangeably" demonstrates the seriousness of his misunderstanding. The type of price cap regulation currently in effect at the state and federal levels is a fundamental threshold question that must be addressed before Dr. Weisman or other ILEC witnesses conclude that it assures ILEC network efficiency.

10. While it is correct that under a "pure" price cap plan "there is no *ex post* sharing of earnings with consumers," and all related costs and revenues are capped, that is only part of this *theoretical* form of incentive regulation. Under traditional rate of return regulation, rates were *based* upon costs; if costs went up, rates increased, and if they went down, so too did rates. Proponents of price cap or other forms of incentive regulation argued that the "cost-plus" nature of rate of return regulation eliminated any incentive on the part of the regulated utility to operate efficiently, and indeed encouraged it to engage in "gold plating" of its assets as a means for maximizing its profits. "Pure" price cap regulation is supposed to *permanently* sever the linkage between rates and costs by tying rates to external conditions beyond management's control, such as economy-wide inflation and industry-wide productivity growth rates.

11. Unfortunately, and as I have discussed in detail in my December 16, 2003 Declaration, the type of "price cap regulation" that has been implemented at both the federal and state levels is anything but "pure." Although the requirement to "share" excess earnings has been largely

removed from most price cap plans, an ILEC's failure to achieve a particular productivity target has in virtually every instance been rewarded by reducing the target itself. To extend Dr. Weisman's Olympic sprinter analogy, if the sprinter finds that he can no longer run a mile in four minutes, the officials would simply move the finish line 300 feet closer to the starting point. If the runner has a realistic expectation of this result, his incentive to run faster would clearly be attenuated. Dr. Weisman asks:

> Why would a regulated firm subject to price cap regulation over an extended period of time choose to be less efficient than it knows how to be?[8]

The answer to this question is that the regulated firm would do exactly that – choose to be less efficient than it knows how to be – if by so doing it is able to obtain permanent regulatory concessions that enhance its profit opportunities for the long term.

12. Far more compelling than an incentive to operate efficiently, price cap regulation *as actually implemented* confronts the ILECs with the incentive to engage in cost misallocation and regulatory gaming. Dr. Weisman's notion of "pure" price caps might have some theoretical merit if *all of the ILEC's operations were embraced by the price cap system.* In fact, of course, price cap ILECs are permitted to operate under a hybrid arrangement, partially subject to a price cap and partially afforded pricing flexibility or relieved of the burden of price regulation altogether. The bifurcation of regulation between state and federal jurisdictions only facilitates the regulatory gaming opportunities. For example, in response to the FCC's last *Price Cap*

8. *Id.*, at para. 43.

FNPRM,[9] several commenting parties presented evidence that interstate services exhibited significantly higher rates of productivity growth than intrastate services. These parties had urged that a price cap indexing mechanism that was to be applied solely to *interstate* services should be based upon jurisdictionally *interstate-only* productivity growth.[10] The ILECs countered that the development of jurisdictionally separate productivity measures was economically meaningless.[11] The FCC adopted the ILECs' position, and based the productivity offset (X) factor upon *unseparated* total company productivity experience. In fact, productivity growth rates for interstate services are and continue to be far greater than for intrastate services, as demonstrated by the double-digit *interstate* rates of return that the ILECs have been able to realize under price caps.[12] Incredibly, and notwithstanding their contentions to the FCC as to the *impossibility* of jurisdictionally separated productivity analyses, the very same ILECs have regularly demanded

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9. *Price Cap Performance Review for Local Exchange Carriers*, CC Docket No. 94-1; *Access Charge Reform*, CC Docket No. 96-262, *Further Notice of Proposed Rulemaking*, FCC 99-345,14 FCC Rcd 19717 (1999) ("*Price Cap FNPRM*").

10. *Price Cap Performance Review for Local Exchange Carriers*, CC Docket No. 94-1; *Access Charge Reform*, CC Docket No. 96-262, Comments of the Ad Hoc Telecommunications Users Committee, January 7, 2000, at Sections VI & VIII; *Price Cap Performance Review for Local Exchange Carriers*, CC Docket No. 94-1; *Access Charge Reform*, CC Docket No. 96-262, Comments of AT&T Corp., filed January 7, 2000, at 8-11.

11. *Price Cap Performance Review for Local Exchange Carriers*, CC Docket No. 94-1; *Access Charge Reform*, CC Docket No. 96-262, Reply Declaration of William E. Taylor, Attachment A to the Reply Comments of USTA, filed January 24, 2000, at paras. 6-19.

12. *In Re AT&T Corp., AT&T Wireless, The COMPTEL/ASCENT Alliance, eCommerce and Telecommunications Users Group, and the Information Technology Association of America*, United States Court of Appeals for the District of Columbia Circuit, No. 03-1397, Petition for Writ of Mandamus, November 5, 2003 ("*AT&T Petition for Writ of Mandamus*"), at 15-16, citing interstate rates of return of more than 38%.

intrastate-only productivity offsets in state price cap proceedings.[13] Under this form of "pure" price caps, the ILECs are allowed to retain the double-digit returns on their interstate services, while concurrently demanding – and obtaining – reductions in their intrastate X-factors or, in a number of cases, elimination of any productivity offset altogether. Put simply, rather than becoming more efficient, the ILECs simply get the finish line moved up.

In addition to intrastate/interstate productivity distinctions, removing purportedly "competitive" services from price caps allows ILECs to earn high returns while claiming the need for regulatory relief from "confiscatory rates" for price cap services.

13. ILECs are able to "game" the current price cap system as a result of the hybrid arrangement whereby ILECs are enabled to utilize the same common network infrastructure and corporate resources to provide both regulated and nonregulated services. Many states, however, provide little or no regulatory oversight for nonregulated, purportedly "competitive" services. Not surprisingly, ILECs often *raise* prices on these "competitive" services after they have been removed from price caps.

13. See, e.g. Rebuttal Testimony of Richard G. Petzold (Bell Atlantic-DC), District of Columbia Public Service Commission, Formal Case No. 814, Phase IV, September 15, 1995, at 18; Amended Direct and Rebuttal Testimony of Dr. William E. Taylor (Carolina Telephone and Telegraph Co. and Central Telephone Co.), North Carolina Utilities Commission, Docket No. P-7, Sub 825; P-10, Sub 479, February 9, 1996, at 38.

14. For example, SBC Illinois (then Illinois Bell) was permitted to be regulated under price caps beginning in 1994.[14] At that time, the Illinois Commerce Commission set the company's X-factor at 4.3%.[15] However, over the years, a succession of services were reclassified as "competitive" and removed from price cap regulation. As I had noted in my December 16, 2003 Declaration, SBC Illinois frequently *increased* the prices of services shortly following such reclassifications, as noted in a 1998 report by the Illinois Commerce Commission Staff.[16]

15. Since both high revenue "reclassified" services and price cap regulated "basic" services are provided on a highly integrated basis utilizing the same pool of common network components, ILECs are able to shift joint and common costs between price cap and non-price cap services, thus reflecting higher network costs to be recovered through fewer revenue sources. By shifting costs to their regulated operations, ILECs can and do portray earnings shortfalls for those services subject to a price cap while generating excessive earnings on their nonregulated, purportedly "competitive" services.

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14. *Illinois Bell Telephone Company: Petition to Regulate Rates and Charges of Noncompetitive Services Under An Alternative Form of Regulation. Citizens Utility Board -vs- Illinois Bell Telephone Company: Complaint for an investigation and reduction of Illinois Bell Telephone Company's rates under Article IX of the Public Utilities Act*, Illinois Commerce Commission Docket Nos. 92-0448 and 93-0239 Consol., *Order*, Rel. October 11, 1994.

15. *Id.*

16. Declaration of Lee L. Selwyn, filed on behalf of AT&T, December 16, 2003 ("*Selwyn (AT&T)*"), at fn. 16, citing, Telecommunications Division, Illinois Commerce Commission, *Staff Report on Competitive Reclassification*, issued November 25, 1998.

16. Indeed, the ILECs have done just that in a pleading submitted on January 9, 2004 to the United States Court of Appeals for the District of Columbia Circuit. In their effort to argue that the excessive double-digit rates of return that RBOCs are currently earning on their interstate special access services – the majority of which are no longer subject to price caps – are not indicia of either excessive pricing or market power, the RBOCs claim that the costs of these primarily flexibly-priced services are being allocated to those that are still subject to specific price constraints pursuant to the so-called *CALLS* settlement:[17]

> The problem of mismatches is particularly acute where special access is concerned, because the rules assign *revenues* associated with DSL services and interstate packet-switching services to the special-access element but assign a significant portion of the associated interstate *costs* to other elements. This leads to inflated rate-of-return numbers for special-access services.[18]

Not surprisingly, the supposed over-allocation of costs to price-regulated services enables the RBOCs to *portray* these as being provided at a loss:

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17. *In the Matter of Access Charge Reform,* CC Docket No. 96-262; *Price Cap Performance Review for Local Exchange Carriers*, CC Docket No. 94-1; *Low-Volume Long Distance Users*, CC Docket no. 99-249; *Federal-State Joint Board On Universal Service*, CC Docket No. 96-45; *Sixth Report and Order in CC Docket Nos. 96-262 and 94-1; Report and Order in CC Docket No. 99-249*; *Eleventh Report and Order in CC Docket No. 96-45*, FCC No. 00-193, 15 FCC Rcd 12962 (2000) ("*CALLS Order*")

18. *In re AT&T Corp. et al, Petitioners, On Petition for Writ of Mandamus to the Federal Communications Commission*, Response of Intervenors in Opposition to the Petition for a Writ of Mandamus, United States Court of Appeals for the District of Columbia Circuit, No. 03-1397, filed January 9, 2004 ("*BOC Mandamus Response*"), at 14, footnotes omitted.

> Verizon's ARMIS-reported switched-access return in 2001 was a mere 7.81 percent. For the 12-month period ending August 31, 2002, SBC's regulatory rate of return for switched-access services was a negative 3 percent.[19]

Revenue shortfalls with respect to intrastate price capped services allow ILECs to increase revenues without increasing network efficiency.

17. To recover earnings shortfalls (precipitated either by the removal of high revenue services from price caps, other methods of misallocating costs and revenues, or through an actual failure to realize network efficiencies), ILECs often demand the ability to recover alleged earnings deficiencies associated with regulated services with favorable revisions to their price cap systems. ILECs regularly rely upon *realized* results as the basis for adjustments to their price cap plans. Rather than permanently de-linking rates from costs, such reliance upon realized results makes price caps nothing more than a somewhat more cumbersome variant of traditional RORR.

18. One particularly popular device is to offer "updated" total factor productivity ("TFP") studies that portray less, rather than more, productivity growth than had been present at the time that the initial X-factor had been set. Consider the following: The Arizona Corporation Commission is currently considering Qwest's "Amended Renewed Price Regulation Plan" in Docket No. T-01051B-03-0454. In its September 26, 2003 filing, Qwest states:

19. *Id.*, at 14-15, footnotes omitted.

> In 2001, the Arizona Corporation Commission ("ACC" or "Commission") adopted a Price Regulation Plan for Qwest. ... The adoption of this price regulation plan was an important first step by the Commission to move away from traditional utility-style regulation. That plan provided for Qwest to request renewal "under current terms and conditions" or to request renewal with revisions. *Qwest is filing this notice to request renewal with revisions.* Qwest is proposing to continue the evolution of price regulation in Arizona to reflect both competitive realities and the need for greater pricing and packaging flexibility. *The revisions Qwest is seeing also give the Company greater assurance of an opportunity to recover the fair market value of its assets* as competition with all of its service offerings intensifies. The revisions are in line with the evolution of price regulation plans elsewhere.
>
> . . .
>
> The productivity factor used in the [2001] Settlement Agreement was based on an analysis of Qwest's historic Arizona productivity during a four-year period from 1995 to 1998. Using the same method incorporated in the calculation of the productivity factor used in the Settlement Agreement, Confidential Attachment B *computes Qwest's average annual Arizona productivity during a four-period from 1999 through 2002. ...*[20]

19. Qwest/Arizona is hardly unique. In fact, the *pervasive pattern* of ILEC price cap renewal activity has involved efforts to reduce or eliminate the productivity offset factor altogether. For example, in 1995, during the California PUC's second triennial review of the regulatory framework for local exchange carriers, Pacific Bell proposed to discontinue the use of the price cap formula in its entirety, or as an alternative, to replace the existing productivity

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20. , *In the Matter of Qwest Corporation's Amended Renewed Price Regulation Plan*, Arizona Corporation Commission Docket No. T-01051B-03-0454, "Qwest Corporation Amended Renewed Price Regulation Plan," filed September 26, 2003, at 1-2, emphasis supplied.

factor of 5%[21] with a productivity factor of 2.1%. In his testimony, Pacific Bell Witness Dennis W. Evans highlighted the reduction in the revenue growth and decrease in net income results that Pacific Bell had exhibited since the adoption of the incentive-based regulatory framework in 1989, as well as the overall decline of the economic environment as support for Pacific Bell's record of lower productivity.

> ... [A]n examination of our revenues provides valuable insight into the impact of incentive-based regulation. ... In the five year period under incentive-based regulation (1990-1994), Pacific's revenue growth was significantly reduced, growing at only .2% CAGR [Compound Annual Growth Rate]. ... Pacific experienced the lowest total revenue growth of any of the RBOCs from the end of 1989 through 1994... [22]
>
> ... Pacific's net income performance under incentive regulation was, at best, mediocre. ... Pacific's net income for the 1984-1989 time period grew at 7.2% CAGR, while Pacific's net income for the 1990-1994 time period declined at a -2.2% CAGR.[23]

Pacific Bell's witness continued:

> As the [California Public Utilities] Commission evaluates recommended changes to the price cap formula, it is important to recall that California's economic environment is considerably different than that which existed in the period immediately preceding 1989 when the incentive framework was established. As

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21. *Re Alternative Regulatory Frameworks for Local Exchange Carriers, Interim Opinion on Phase II,* CPUC Decision No. 89-10-031, I.87-11-033, October 12, 1989.

22. Dennis W. Evans, *Pacific Bell's Responses to the Issues in Phase I of the Investigation 95-05-047,* This report was submitted as an attachment to Evans' Testimony on behalf of Pacific Bell, in CPUC Investigation No. 95-05-047, September 8, 1995, at 10.

23. *Id.*, at 12.

> Dr. Schmalensee reports, "population, employment, and personal income" growth rates are expected to be "considerably smaller than those that prevailed in the early and late 1980's." Dr. Christensen states that "California is expected to perform at or below the national average through 1997." This change in California economic growth affects the output growth for Pacific, and makes it much more difficult to realize the high level of productivity necessary to offset the unreasonable "X" factor and competition.
>
> ...
>
> Pacific must produce reasonable earnings and earnings growth in line with investor expectations. This has not occurred since Pacific began operating under the incentive-based regulatory framework.[24]

By this testimony, Pacific Bell was expressly asking the California PUC to adjust the price cap mechanism in light of these results. There is certainly nothing "pure" about that form of price cap regulation. And by acting favorably on Pacific's request, the PUC only reinforces the idea that *inefficiencies* (as reflected in earnings shortfalls) will be rewarded, thus hardly creating any incentive for *efficient* behavior.

20. Most recently, in an ongoing proceeding in Wisconsin PSC Docket 1-AC-193 that had been initiated to review the current Commission productivity model, similar contentions were advanced by SBC Wisconsin in support of its recommendation that the Commission should either reduce the current productivity factor of 3% for monopoly services or leave it unchanged while placing a ceiling on the productivity factor of 2% plus the change in GDPPI.[25]

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24. *Id.*, at 15.

25. *In the Matter of Rulemaking to Revise Wis. Admin. Code Chapter PSC 163,*

(continued...)

21. In its comments to the Wisconsin PSC, SBC Wisconsin supported the findings of a Christensen Associates TFP study[26] that claimed that not only are Wisconsin ILEC productivity growth rates significantly less than the productivity growth rates of the national ILEC industry,[27] but that SBC Wisconsin "under-performed the rest of the Wisconsin ILECs for the period 1996-2001 (1.0% versus 1.9%)," and that "this disparity is primarily due to significantly lower output growth for Wisconsin Bell, which is reflective of lower growth in revenues – especially from switched access lines."[28] Based upon these findings, the Christensen study concluded that:

> If recent trends are indicative of future trends, the X factor of 2% and 3% set by legislation will continue to be very challenging hurdles for Wisconsin ILECs. Even if productivity growth increases to previous trend rates, the Wisconsin X factors represent reasonable but challenging hurdles for Wisconsin ILECs.[29]

SBC went even further in its comments, citing the unlikeliness of SBC Wisconsin actually realizing productivity gains in the future under the current price cap mechanism.

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25. (...continued)
Telecommunications Utility Price Regulation, Regarding the Productivity Offset Factor, Comments of SBC Wisconsin, WPSC Docket No. 1-AC-193, January 10, 2003, (*"SBC Wisconsin Comments"*) at 25.

26. The Wisconsin PSC selected two firms, Christensen Associates and Economics and Technology, Inc., to prepare separate analyses of the historic and future productivity growth in the Wisconsin telecommunications industry.

27. Christensen Associates, *Productivity Performance of the Wisconsin Local Exchange Carrier Industry*, WPSC Docket No. 1-AC-193, January 10, 2003., at 2.

28. *Id.*, at 2

29. *Id.*, at 3.

> Net income is dropping and substantially lower than it was seven years ago. As a result, SBC Wisconsin's ability to fund investment and service quality goals is increasingly jeopardized. SBC Wisconsin is a large firm that has exhausted most opportunities for large productivity gains. Like the CPUC [in its decision in Investigation 95-05-047] the [Wisconsin] Commission should temper the productivity factor to fit the current and likely future circumstances of intensifying competition and little opportunity for productivity growth.[30]

Importantly, the ILECs' efforts to reduce or eliminate the productivity offset have generally been met with consistent success. For example, in its resulting decision in CPUC Investigation No. 95-05-047 , the California PUC elected to suspend the use of the price cap formula and to freeze all rates for monopoly services.[31] The only "incentive" that is operative here is the incentive to persist in attempts to further eviscerate the efficiency-oriented aspects of price cap regulation. Armed with the expectation of success as regulator after regulator accedes to their demands and "updated" studies, the ILECs' efficiency incentives under price cap regulation is not consequentially different than under RORR. If anything "presumptive" is to apply to ILEC efficiency under price caps, it is that the ILECs have no more of an incentive to improve their efficiency today than they did a decade or more ago, before price cap regulation was ever introduced.

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30. *SBC Wisconsin Comments*, at 22.

31. *Investigation on the Commission's Own Motion Into the Second Triennial Review of the Operations and Safeguards of the Incentive-Based Regulatory Framework for Local Exchange Carriers, Interim Opinion,* CPUC Decision No. 95-12-052, Investigation No. 95-05-047, December 20, 1995.

22. Indeed, the past ten years of ILEC history confirm that, if anything, the institution of price cap or other forms of "incentive" regulation (no matter what its "purity") have worked to reward ILECs far more for their strategic conduct vis-a-vis regulators and competitors than for improvements in the "efficiency" of their operations. The vast disparity in Plant Non-Specific Expenses among Verizon BOC affiliates (as detailed in the Reply Testimony of Menko, McCloskey and Brand), for example, confirms that ILECs retain significant unnecessary inefficiencies. To the extent that the prevailing forms of price cap regulation work to force ILECs to flow-through their efficiency gains to their customers, the incentives to engage in strategic conduct overwhelm and easily supersede any serious "efficiency" objectives.

ILEC provision of unregulated services not available as UNEs ensures that, under any price cap scheme, the ILEC network's embedded costs will always exceed the costs of an efficient network designed to provide only services available as UNEs.

23. Even if ILEC manipulations of price caps did not occur, the most theoretical, "purest," and most unrealistic form of price cap regulation cannot be "presumed" to have weeded out preexisting ILEC inefficiencies. That would be the case only in a world in which "pure" price cap regulation had applied from the outset, i.e., over the entire period over which the existing ILEC network has been acquired. But that is certainly not the case here. ILEC networks were designed and built-out long before price cap regulation took effect, and all investment decisions made by ILECs since 1991 have been incremental changes to that embedded base. Thus, even if pure price cap regulation had applied in its theoretical "pure" form since 1991, and even if all of the incremental investments that have been made since 1991 have been optimally "efficient" to

the extent not constrained by preexisting network architecture and design, that in no sense assures that the network *as it exists today* is optimally efficient.

24. In fact, there is no basis to conclude or to suggest that the post-1991 ILEC network enhancements were by themselves even optimally efficient with respect to the specific network components that are required to be offered as UNEs. Rather than work to improve their existing infrastructure, ILEC investment decisions (at least in recent years) have been driven by incentives to construct and optimize a broadband network with capabilities that CLECs cannot access.[32] To the extent that ILECs are able to jointly use UNE equipment for the provision of broadband services, these common costs provide significant incentive for the ILECs to misallocate costs. There is thus no reason to assume or even to expect that an ILEC's decision with respect to its facilities provided as UNEs would make efficient forward-looking decisions regarding their *legacy* network, which is all that the ILECs are required to unbundle.

25. The theory underlying the ILECs' claims regarding price cap regulation and efficiency is rooted in the notion that price cap regulation "de-links" the ILEC's rates from its costs. In fact, and as I have discussed at considerable length both here and in my December 16, 2003

32. *In the Matter of Review of the Section 252 Unbundling Obligations of Incumbent Local Exchange Carrier*, CC Docket No. 01-338; *Implementation of the Local Competition Provisions of the Telecommunications Act of 1996,* CC Docket No. 96-98; *Deployment of Wireline Services Offering Advanced Telecommunications Capability,* CC Docket No. 98-147, *Report and Order and Order on Remand and Further Notice of Proposed Rulemaking*, FCC No. 03-36, 18 FCC Rcd 16978 (2003) ("*Triennial Review Order*" *or* "*TRO*"), 17141, at para. 272.

Declaration,[33] rates and costs remain inextricably linked under price caps because the price adjustment mechanism is itself subject to periodic review and modification based upon actual ILEC earnings and productivity performance. However, even if (*arguendo*) price cap regulation actually had permanently de-linked rates and costs, such de-linking would only have been with respect to the ILECs' *aggregate* revenue requirement, and *not* with respect to specific, individual services.

26. In particular, prices for wholesale services (UNEs) that are provided to CLECs are presumptively cost-based (i.e., set at TELRIC). While TELRIC in theory also de-links UNE prices from embedded ("actual") ILEC costs (in that TELRIC is supposed to reflect "the most efficient technology used most efficiently"), the conversion of investment costs into recurring rates typically involves the application of embedded annual carrying charge factors (e.g., maintenance, administrative expenses), a process that operates to flow through whatever inefficiencies persist in ILEC service provisioning and operations. Moreover, ILECs frequently attempt to "adjust" model inputs to capture their own specific cost conditions.[34] And obviously, the persistent ILEC demand for recovery of "actual costs" in UNE rates would, if allowed,

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33. Selwyn (AT&T), at 15-30.

34. For example, an SBC witness recently advocated state and company specific values for cable fill factors for feeder and distribution, structure costs including trenching labor, plant mix values, Service Area Interface (SAI) splicing and labor rates, and Digital Loop Carrier (DLC) contract data. *Application by SBC Communications Inc., Pacific Bell Telephone Company, and Southwestern Bell Communications Services, Inc. d/b/a Southwestern Bell Long Distance for Provision of In-Region, InterLATA Services in California*, WC Docket 02-306, Reply Affidavit of Thomas J. Makarewicz on Behalf of SBC, filed November 4, 2002, at para. 8.

expressly maintain as direct a linkage between UNE prices and ILEC-specific costs as would prevail under traditional rate of return regulation. Moreover, to the extent that certain network assets are used to jointly provide traditional voice-grade services as well as Sec. 706 "advanced" services (e.g., xDSL and other "broadband" offerings), the use of aggregate plant utilization (fill) percentages, carrying charge factors, depreciation rates, and costs of capital may operate to shift costs of such "advanced" and other competitive services over to the noncompetitive UNEs. This would occur whether the aggregate ILEC operations are subject to price cap or to rate of return regulation; to the extent that cost and other operational detail reporting that is required of ILECs operating under price cap regulation is less detailed, less frequent, and less specific relative to what would be expected under rate of return regulation, the potential for such misallocation and cost-shifting is actually *far greater* under price caps than under RORR.

27. Even if price cap regulation were actually to stimulate BOC efficiency initiatives, the implementation of specific operational improvements necessarily involves prioritization, and (following their receipt of Sec. 271 in-region interLATA services authority) BOCs have a strong incentive to put wholesale services provided to other carriers at the very bottom of the priority list. Indeed, to the extent that wholesale rates are cost-based, the deferral of a productivity improvement enables the BOCs to rely upon the higher costs (arising from the legacy inefficiencies) to justify higher UNE prices. The ILECs' obvious incentive to increase rivals' costs by jacking up UNE rates overwhelms and supersedes whatever nominal "efficiency incentives" they might in theory acquire as a result of "pure price cap" regulation (which, of course, does not exist in any event).

28. The obvious means for increasing CLEC costs is to deliberately resist introducing efficiencies and best practices into the provision of UNEs and other wholesale services. For example, far from relying on BOC "best practice" incentive, the Commission noted the incentive for BOCs to "backslide" with respect to its obligations to CLECs after receiving Section 271 authority, and indicated its willingness to impose sanction on a BOC that succumbed to these incentives.[35] The Commission recently specifically recognized one of these artificial barriers, ILEC provision of "hot cuts," in its *Triennial Review Order*. The Commission recognized that ILEC "inability to handle a sufficient volume of hot cuts" created hurdles CLECs had to overcome in order to serve mass market customers.[36] The presence of price cap regulation cannot alter the inescapable fact that today, some eight years after the 1996 *Act* became law, the Commission and state regulators are still being forced to deal with such *inefficiencies* as "hot cuts," installation and repair intervals.

29. Contrast that with the rapid and (by comparison) enormously more efficient processes that the BOCs developed in the 1980s to implement equal access and PIC changes at a time when they were both indifferent as to the customer's choice of carrier and saw switched access as a particularly lucrative source of revenue. Moreover, as AT&T has argued in the *Special Access*

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35. *Application by Bell Atlantic New York for Authorization Under Section 271 to Provide Inregion InterLATA Service in the State of New York*, CC Docket No. 99-295, *Memorandum Opinion and Order*, FCC 99-404, 15 FCC Rcd 3953(1999), 4176, at para. 451.

36. *TRO*, at para. 422, see also fn. 1435.